





# BULLETIN

OF

**the National Association for the Study and Prevention of Tuberculosis**

Vol. III.

NOVEMBER, 1916.

No. 2

## Helps In The Red Cross Seal Campaign

HONORS AND PENNANTS FOR RED CROSS SEAL AGENTS—MODERN HEALTH CRUSADERS, AN OPPORTUNITY FOR AGENTS, TEACHERS AND VISITING NURSES—CERTIFICATES—BUTTONS—SHIELD PINS—MAIL SALE LETTERS PREPARED FOR AGENTS—LIST OF PRINTED

Since the publication of the October *Bulletin* two new circulars for Red Cross Seal Agents have been distributed by the National Association. They are "Honors and Pennants" and "Modern Health Crusaders." With each of them a Sales Manager's letter giving explanations and recommendations was issued. Any one actively interested in the Red Cross Seal Campaign who has failed to receive from his State Agent either of these or the other pieces of Red Cross Seal printed matter listed below is invited to write to the National Association for sample copies. Samples will be sent free regardless of whether quantities are supplied free or at the listed cost figures.

### HONORS AND PENNANTS

The *Honors and Pennants* Circular announces the third annual national competition for pennants to be awarded by the American Red Cross and the National Association and gives the rules of the competition. It reprints a photograph of the thirteen beautiful red and white satin banners presented last May at Washington to the winners of the second competition. Besides the list of those winning localities and states, the circular gives the names and the sales per capita of the villages and cities which won second and third places and the standings of all the states.

The division of territory into classes is the same this year as last, with one minor change, and accordingly a separate pennant will be awarded with its country-wide attendant publicity to the winning village, town, city or county in each of the following ten classes: *Class 1*, Populations 300 to 600; *Class 2*, 600 to 1200; *Class 3*, 1200 to 2000; *Class 4*, 2000 to 8000; *Class 5*, 8000 to 25,000; *Class 6*, 25,000 to 50,000; *Class 7*, 50,000 to 150,000;

*Class 8*, 150,000 to 400,000; *Class 9*, 400,000 to 1,000,000; *Class 10*, over 1,000,000. Likewise a pennant will be awarded in the interstate competition to the State Association under whose general agency the highest sale per capita is made in each of the following three classes of states:

*Class A*, population under 1,250,000; *Class B*, 1,250,000 to 2,400,000; *Class C*, over 2,400,000.

In addition to the offer of pennants, the National Association will issue Certificates of Honor to each local Agent in the United States in charge of a specific territory (village, town, city or county) where the sale of seals reached the "Standard of Five," a per capita sale of five.

### "MODERN HEALTH CRUSADERS"

The circular thus named is devoted to the movement that outstripped all anticipations last Fall under the eager pull of many thousand newly enrolled Crusaders. It also describes the insignia to be distributed to children selling Red Cross Seals in the 1916 Campaign.

The local agent for Red Cross Seals may merely enroll children as Modern Health Crusaders in the general movement by issuing the new official certificate card to the child who sells or buys at least ten seals and agrees to try to live up to the Crusader's Health Rules and undertakings, or he may organize a League of Modern Health Crusaders, under himself as League Master to carry out a program, large or small, in health work after the Seals Campaign is over. The spontaneous formation of Leagues for continued work in various parts of the country has demonstrated the demand for this method of harnessing the power of children for public health work.

The circular, "Modern Health Crusaders," tells how to organize a local League, enumerates the officers, Marshall, Captain and Herald, suggests programs of work, and gives a model constitution.

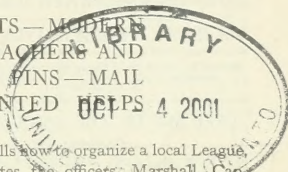
Provision has been made for the enrollment of Local Leagues in a National Legion of Modern Health Crusaders after they have met certain requirements. In many states State Legions, under the management of the State Anti-Tuberculosis Associations, will enroll the members of their Local Leagues, issuing certificates of membership and letters of commendation to their Crusaders when qualified.

Just as the Crusader working in the Red Cross Seal Campaign has the incentive of graded insignia and titles of advancing rank, the members of Leagues have held out to them recognition in their State Legion and then in the National Legion as inducement for continued progress in their work for the advancement of health. Modern Health Crusaders' Leagues afford an opportunity for constructive work for and through children not only to Red Cross Seal Agents, but to teachers, visiting nurses, community workers, and all who are engaged in the sociological side of health work.

### INSIGNIA AND PRICES

The Crusaders certificate cards for enrolling children through 1917 are a decided improvement over the attractive 1916 cards. They are for all children from five to eighteen years of age, who meet the requirements of a Modern Health Crusader. They convey the lowest rank.

The 1916 Red Cross Seal Buttons, awarded to a Crusader, are the symbol of the next highest rank in the progress of knighthood among Crusaders. They are presented to the Crusader who has sold (or bought) at least 25 Seals, and with





# BULLETIN OF THE NATIONAL ASSOCIATION FOR THE STUDY AND PREVENTION OF TUBERCULOSIS

Published Monthly

In the Interest of Workers Engaged in the  
Anti-Tuberculosis Movement by

THE NATIONAL ASSOCIATION FOR THE  
STUDY AND PREVENTION OF TUBERCULOSIS  
105 EAST 22ND STREET, NEW YORK CITY

Vol. III. NOVEMBER, 1916. No. 2.

Entered as Second Class Matter October 21, 1914, at the  
Postoffice at New York, N. Y., under the Act  
of August 24, 1912.

## OFFICERS OF THE ASSOCIATION

### President

DR. E. R. BALDWIN, - Saranac Lake, N. Y.

### Vice-Presidents

DR. W. S. RANKIN, Raleigh, N. C.

DR. JAMES A. MILLER, New York, N. Y.

### Secretary

DR. HENRY BARTON JACOBS, Baltimore, Md.

### Treasurer

WILLIAM H. BALDWIN, Washington, D. C.

## EXECUTIVE OFFICE

105 East 22nd Street, New York City

DR. CHARLES J. HATFIELD, *Executive Secretary*

PHILIP P. JACOBS, Ph.D., *Assistant Secretary*

DR. DONALD B. ARMSTRONG, *Assistant Secretary*  
and *Executive Officer of Community Tuberculosis Experiment.*

CHARLES M. DeFOREST, - *Field Secretary*

FREDERICK D. HOPKINS, - *Field Secretary*

them is conveyed the title of Squire. The Buttons are celluloid pins depicting the seal in circular form, and in red and green. The Shield Pins are the badges of the Knights of the Modern Health Crusaders. They are handsome metal clasp pins, each carrying the double cross emblazoned on the shield in brilliant red enamel. They are finished in oxidized silver, or in gold plate. The former style is awarded to the Crusader who has sold or bought at least 100 seals and is the mark of the Knight; the latter style is awarded after 500 seals have been negotiated and entitles its winner to the rank of Knight Banneret.

The National Association supplies these insignia to authorized Red Cross Seal Agents at the following cost prices:

Certificates of Enrollment (Cards) per thous. \$2.00  
Red Cross Seal Buttons (Celluloid) per thous. 3.45  
Shield Pins (Silvered) per hundred..... 4.20  
Shield Pins (Gold Plate) per hundred..... 7.20  
The prices for smaller quantities are pro rata.

## "DANNY'S CHRISTMAS SEAL"

This is the title of the official 1916 story-talk by teachers to their children. Tens of thousands of copies have already been distributed for use on Children's

Health Crusade Day, December 8th. This delightful story, adapted especially for children not above grammar grades, was written by Maynard Downs and Louise F. Brand, author of the verses, both of the Wisconsin Anti-Tuberculosis Association. The National Association considers "Danny's Christmas Seal" the best story for Crusade Day of all submitted. For price of story in quantity, see below.

## MAIL SALE LETTERS

The special pamphlet issued by the National Association on "Selling Seals by Mail," together with Circular B, fully describes this method, the most profitable of the eight standard methods of selling seals. To local and state agents who cannot prepare Mail Sale Letters rightly and promptly, the National Association extends its facilities. There is no charge for supervision. The actual cost of the letters alone is charged, amounting approximately to 7c. per letter, including 4c. postage. Immediate action is required by those who wish this work done for them. Agents should telegraph their application for the service and state the number of persons to be addressed. Advance remittance should be made to cover 4c. postage per letter; the additional cost will be billed to the agent.

The principal forms of printed matter issued by the National Association for the aid of Red Cross Seal Agents are given below. No charge for transportation is made on free supplies. Transportation from New York is charged on supplies for which payment is required, in addition to the prices quoted.

Guides for Agents—Circulars A, B and C..... Free  
Pamphlet on "Selling Seals by Mail"..... Free  
"Honors and Pennants"..... Free  
"Modern Health Crusaders"..... Free  
Children's Health Day Talk,  
"Danny's Christmas Seal," 20c. per hundred  
Acknowledgment postcard for the  
Mail Sale..... \$2.15 per M  
Follow-up postcards..... \$2.00 per M  
Red Cross Seal Letterheads..... \$2.35 per M  
Record Cards for Mail Sale  
Letters..... \$1.00 per M  
Modern Health Crusaders certificate cards..... \$2.00 per M

## SLIDES AND CUTS

Lantern Slides of the 1916 Seal, 8 1/2c. each  
1/4 column cuts of seal..... Free  
1 column cuts of seal..... Free

\* The approximate prices, subject to change in costs.

The above cuts and slides are supplied free in limited quantities to State Agents for seals. Local Agents should apply first to them.

Advertising cuts for newspapers, displaying drawings and "selling talk" (five cuts), prices from \$.22 to \$.58 depending on size. Printed proof of these five cuts will be sent free.

## Action By National Association Board

At a meeting of the Board of Directors and the Executive Committee of the National Association on October 14th, action was taken on a number of important matters, including the following:

1. It was decided to launch a new scientific journal of tuberculosis to be named *The American Journal of Tuberculosis*. Further details of this plan will be published in a later number of the *Bulletin*.

2. The report of the Committee on Standard of Diagnosis of Pulmonary Tuberculosis in Children was presented by Dr. James Alexander Miller, and it was resolved that the report of the committee be approved, subject to such minor changes as the committee may make. As soon as these changes can be affected, the report of the committee will be published in a form that will be readily available for general distribution.

3. As a result of a vigorous discussion of the report of the Committee on Interstate Control of Tuberculosis, the following resolutions approved by the Executive Committee were adopted by the Board of Directors:

RESOLVED: That the National Association renew and emphasize its request for establishment of a division of tuberculosis in the United States Public Health Service; and that the National Association is still of the opinion that the appointment by the Public Health Service of an Advisory Counsel on the subject of tuberculosis would be helpful in this connection.

4. The President was authorized to appoint delegates to a conference on social insurance called by the International Association of Industrial Accident Boards and Commissions to be held at Washington, December 5th to 9th. The following men have been appointed delegates by the President: Dr. Lee K. Frankel, New York; John M. Glenn, New York, and William H. Baldwin, Washington.

5. Cincinnati was chosen as the place for the next annual meeting of the Association. Owing to the difficulty in adjusting dates between the National Conference of Charities and Corrections and the American Medical Association, the question of dates was left for final settlement with the President and the Executive Secretary.

6. A resolution was adopted offering to the Directors of the Bureau of Census assurance of co-operation in a statistical study of tuberculosis being prepared by that Bureau.

7. A request from the Japan Society for the Prevention of Tuberculosis inviting the Association to participate in the Japan-American Conference to be held in Tokyo, October, 1917, was referred to the Executive Committee.



## "The Great Truth"

A MOTION PICTURE OF DRAMATIC FORCE AND EDUCATIONAL POSSIBILITIES—IT ENTERTAINS WHILE IT TEACHES

In the motion picture, entitled "The Great Truth," an effort has been made to portray in a dramatic manner the lessons that tuberculosis is an infectious disease, that it is not inherited, and that it can be cured and prevented.

The picture is in two reels (2,000 feet) and has been produced by the Plimpton Epic Pictures, Inc., of New York, for the National Association for the Study and Prevention of Tuberculosis. All possible care has been taken to keep the story human, warm and dramatic, and at the same time not to destroy the opportunities for bringing home the great truths of tuberculosis. It is not a preachy picture, but it teaches while it entertains.

"The Great Truth" was written for the National Association for the Study and Prevention of Tuberculosis by Elise Williamson Phifer, of Jackson, Miss., Executive Secretary of the Mississippi Anti-Tuberculosis Campaign Committee. Mrs. Phifer has put into it, with the skill of an artist, the lessons which she has found it necessary to teach in her daily work.

The story centers about an old man by the name of David Brown and his nephew, Paul Brown, who lives with him. David is a hunchback and obstinately clings to the belief that he inherited his tuberculosis from his mother, who told him so on her deathbed. His deformity, together with this belief, has embittered his life and, although he is very wealthy, he finds nothing of use to do with his money, except to spend it on his nephew, a harrum-scarum young fellow away at college when the story opens. So obsessed is he with his belief in the hereditary nature of tuberculosis that David has forbidden Paul ever to marry under penalty of disinheritance.

Paul finds books and studies less entertaining than sports and finally plays a joke on his uncle and returns home. Here, by chance, he meets June, the ward of Dr. Wright, a progressive, young physician and health officer in the village. His acquaintance gradually ripens into love, which is reciprocated by June. A dance for the benefit of a tuberculosis hospital brings about a crisis in the life of Paul. As he starts to go, David halts him and demands that he stay home. Paul in rage tears up a ten-thousand-dollar check his uncle had given him for a birthday present and dashes away to the dance. As he turns to leave David draws a revolver, and would have shot him, except for the interposition of a nurse. At the dance Paul proposes to June, is accepted, and after a hastily performed marriage they go to David. He denounces Paul for his marriage, and orders him forever out of his house.

A year has passed and Paul and June

are struggling for a living. The daily long hours of plodding in dark and unsanitary office surroundings finally break Paul down, and in discouragement and despair he is about to give up, believing now, as his uncle had taught him, that he has inherited tuberculosis, and that he has passed the curse on to a child soon to be born to them. In such a fit of despair Dr. Wright finds him, and announces the birth of a perfectly normal and healthy baby. Paul submits to an examination in which the doctor discovers early traces of tuberculosis.

Paul and June have no money, and so the doctor goes to David to beg it. Although cursing his nephew for spreading his inherited disease, David, rather than see him starve or beg, gives him a thousand dollars, and the doctor places him in a sanatorium. Here Paul not only gets new life, but a new vision as well. On his restoration to health he gets a job, and with his happy wife and healthy baby, he loses his old despair.

Christmas time comes again, and with it the Red Cross Seals. While preparations for the celebration are going on, the nurse announces that David, who had been away for several months, has returned. June resolves to storm the citadel, and, taking husband, baby, doctor, and nurse, they quietly enter David's library. The old man is brooding bitterly before the fireplace as June steals up behind him and places the baby in his lap. He looks at the baby in his lap, then at the mother and father, and at the baby again, and then, in astonishment, exclaims, "Why it's back is straight."

Then the doctor tells him that tuberculosis is not inherited, and urges him to believe the great truths that tuberculosis is curable and preventable, and that it is not inherited. With a demonstration in the form of the baby before him, David at last believes and resolves to do what he can to help spread "The Great Truth."

Prints of this picture, suitable for use in any motion picture machine, may be purchased for a limited time only, through the office of the National Association for the Study and Prevention of Tuberculosis, for one hundred and fifty dollars (\$150) for the two reels. Considering that this is a new picture of an exceptionally high character, the price of the picture is an extremely low one. The National Association for the Study and Prevention of Tuberculosis has arranged for a limited rental of the picture. Information about this may be had on application. Prints of this picture have also been purchased by twenty state and local associations and others, and arrangements for loan or rental may be made with these owners.

## Playing a Health Game in School

By H. W. SLOCUM, SECRETARY, VERMONT ASSOCIATION FOR THE PREVENTION OF TUBERCULOSIS, BURLINGTON, VT.

The following is an outline of a plan for encouraging attention to health and hygiene in the public schools of Vermont, approved by the Executive Committee of the Vermont Association for the Study and Prevention of Tuberculosis.

All the world loves to play and this plan proposes to enlist all of the school-children in Vermont in a game of maintaining a clean, healthful environment, out of which shall spread lessons in sanitation to the whole neighborhood. There are one hundred points to this game and every school that earns seventy-five or more points shall receive a suitable honor certificate upon which shall be printed the number of points gained.

The points shall be earned as follows:

1. For running water or a covered can with a faucet for drinking-water, the can to be rinsed every day and scalded at least once each week, 10 points.
2. For individual or paper drinking-cups or a drinking-fountain, 10 points.
3. Clean wash-basins and individual towels for children who take their lunch to school, 10 points.
4. For floors scrubbed weekly, 20 points; every other week, 10 points.
5. For windows opened so as thoroughly to change the air at least twice each day during school sessions, 20 points. (If necessary, pupils can stand and follow the teacher in an exercise while the air is freshening.)
6. For windows opened either before or after each session of school for at least five minutes, 10 points.
7. For toilets kept clean and properly protected, 20 points.

Every teacher shall be given a book of rules giving clear directions as to how to play the game, and how to instruct the children to use their influence in securing those things that are necessary for their welfare. This book will also tell about hygiene at home, such as fresh air in the living and sleeping rooms, washing the hands before eating, care of the teeth, etc. The teacher shall be asked to read a chapter from the book to the children at convenient times and loan the book for them to take home.

In the spring every pupil who wishes may write an account of How Our School Helped to Prevent Sickness. These accounts shall be sent to the office of the Association with the name, grade, and age of the author, and every pupil receiving 75 or more credits for the essay shall be sent an attractive acknowledgment-card. The six best essays shall be published in the different papers of the State.

The teachers shall be furnished special blanks for keeping track of the points, but members of the Association may visit schools at any time and report to the secretary. By this plan in the spirit of play we are encouraging sanitary school-rooms, and teaching by word and example lessons in hygiene to an audience that will never forget them.



# How County Tuberculosis Surveys are Conducted in Michigan\*

By ARNOLD MULDER, PUBLICITY AGENT STATE BOARD OF HEALTH TUBERCULOSIS SURVEY, HOLLAND, MICH.

In view of the fact that considerable interest is being shown in the county tuberculosis surveys being conducted in Michigan by the Michigan State Board of Health, a detailed description of a typical survey is herewith given, from which organizations fighting tuberculosis in other states may perhaps receive helpful suggestions. The description given is that of a three weeks' survey. In some of the smaller counties only two weeks or one week is spent, but in that case the main features of the work outlined here are compressed into the shorter time limit.

The people doing the work under the direction of the State Board of Health make up the following party: A director, one full-time diagnostician, several part-time diagnosticians (varying in number according to the size and population of a county), twelve visiting nurses, a speaker and a publicity agent.

## The First Week of the Survey

During the first week two nurses go into the county to pave the way. And first of all they visit the local doctors for the purpose of giving them a clear idea of the scope of the work and to show them how they can help the survey along. They attempt to arouse the personal interest of every doctor in the coming survey. In each town of any size they make arrangements with the physicians for a series of free clinics to be held in some centrally located building during the second week of the campaign. They ask the physicians to prepare lists of patients who in their opinion would be benefited by an examination for tuberculosis, and they ask the doctors to be present at these clinics to take an active part in them, and to make of them a brief post-graduate course in the latest methods of the early diagnosis of tuberculosis. The diagnosticians, usually men chosen by the State Board of Health for their special success in chest work, often take occasion to demonstrate while making examinations, much as a professor in a medical school would give a demonstration before his students with an actual case to illustrate his conclusions.

The "advance" nurses during the first week, moreover, visit anti-tuberculosis societies, civic health societies, literary, school and church organizations—all with a view of securing the intelligent co-operation of as many persons of high standing as possible. To this same end they visit as many homes of prospective subjects for examination as circumstances will allow, it being well known that such personal work is frequently very effective in securing the attendance of many who most need an examination.

Hand in hand with the work of the "advance" nurses during the first week of the survey goes the work of the publicity agent. He gets into personal touch

with the newspaper editors in the various towns in the county, explaining to them the scope and purpose of the survey and trying to interest them in the movement. He tries to make the editors see that, aside from the good that will be accomplished the survey is in reality a big local news feature. During this preliminary week and the two succeeding weeks he acts as the tuberculosis reporter for the papers of the county, "covering" the survey fully from a news point of view. In addition to that he furnishes the newspapers with educational articles about tuberculosis, which are most frequently printed by them in the form of editorials. These articles give the fundamental facts about tuberculosis, its causes, prevention and cure.

During the first week also, either by personal visit or personal letter, the ministers of the towns where clinics are to be held are asked to announce the dates and places from their pulpits on the Sunday beginning the clinic week; at the same time they are asked to devote the following Sunday (the Sunday following clinic week), to a discussion of the tuberculosis problem from the pulpit. The manufacturers in the clinic towns are asked to send those of their employees who they think are physically run down to the free clinics, and they are asked to make this survey the occasion of improving conditions in their factories whenever possible. School superintendents are asked to have their teachers pick out the run-down pupils and accompany them in groups to the clinics the following week.

## The Second Week of the Survey

The second week is devoted exclusively to holding free public clinics. Usually about five towns throughout the county are selected in which to hold clinics. If one of these places is a comparatively large city, four or five days are given to it, perhaps Tuesday, Wednesday, Thursday and Friday. Perhaps another of the places is considerably smaller, and only Tuesday and Wednesday are given to it. Some places may be so small that only one day is given to them. Clinics open at eight A.M. and close at 5 P.M. In each clinic three rooms are used—a waiting room, a dressing room and a clinic room. In the waiting room a corps of nurses takes the temperatures of patients, their personal and family histories of disease, etc. This record accompanies the patient into the clinic room and makes it possible for the physician to devote practically all his time to actual chest examination, without wasting time in preliminaries. And as he examines he lectures to the physicians, while each doctor present is given full opportunity to use his own stethoscope on the patient.

At the conclusion of the clinic week the records of all positive cases are sent to the secretary of the State Board of Health to be placed on file in the office in the usual way prescribed by Michigan law.

Also records of all positive and suspicious cases of tuberculosis are kept on separate slips for local use. Each patient examined is requested to place himself under the care of his family doctor. Each physician is furnished with a list of the findings for those persons who come under his care, for use in the future treatment of the case.

## The Third Week of the Survey

The third week is known as "educational week." Addresses are delivered in schools, colleges, before civic bodies, literary societies, church societies, clubs, etc. Talks are given before common councils in cities and before boards of supervisors whenever they happen to be in session. At these sessions of city and county governing bodies the necessity for local action on the part of the authorities is emphasized. The work done during the clinic week is reviewed, and the lesson of the large number of cases invariably found is driven home. Invariably many more cases are found than the authorities believed existed, and the shock of this discovery usually proves very effective in getting something started. Usually the need of one or more visiting nurses in a county is urged upon boards of supervisors, as well as a full-time county health officer, an adequately equipped laboratory, a tuberculosis sanatorium, and so on. Similar advice, with variations to suit local conditions, is given to city councils.

In the talks in the schools and before various societies, the fundamental facts in regard to sanitation and right living are emphasized. They are as a rule along the broad lines of advising the building of general health as the best means of preventing tuberculosis, the general idea being to emphasize health and hope rather than disease and despair.

During the final week, moreover, nurses go into the homes of persons listed as "positive" or "suspicious" cases to instruct them how to take care of themselves and to instruct their families as to what they must do to avoid infection. The nurses also take this opportunity of distributing a large amount of literature in the homes where it is most likely to be read carefully.

And while this work of the last week of the survey is in progress "advance" nurses and the publicity agent are already engaged in another county doing the preliminary work there, so that when the survey in one county closes the doctors can begin immediately in another holding clinics.

This brief outline gives the main features of a county survey. There are some other features that are inevitably suggested by local conditions, but they do not enter into a description of a typical case, such as this is meant to be. A full set of all blanks, etc., used will gladly be mailed to any one interested. Address Dr. Wm. De Kleine, Director State Board of Health Tuberculosis Survey, Lansing, Mich.

\* A more descriptive and historical article giving results achieved by the Michigan Survey will appear in the *Journal of the Outdoor Life* for January, 1917.



## Medical Notes, Abstracts and Reviews

The object of this monthly department of the "Bulletin" is to put physicians in easy touch with medical and scientific literature, both American and foreign, including magazine articles, books, reports, etc., that bear directly or indirectly upon the treatment and prevention of tuberculosis. This is not a department for news and editorial comment. Its function is rather that of a catalogue or a library. Any material for this department of the "Bulletin" should be sent to Dr. George Mannheimer, at West 51st Street, New York, who has been chosen medical editor.

Readers of the "Bulletin" who wish to have copies of the publication sent to physicians working in dispensaries, sanatoria, laboratories, and in other forms of tuberculosis activities, who are not now receiving it, should send in such lists of names to the National Association. The "Bulletin" is sent free to those who are engaged in anti-tuberculosis work.

**Aberdalen's Reaction in the Tbc.**—Petersen comments on the contradictory nature of the literature on this subject to date, and devotes ten pages to the tabulated details of his own experience with 108 tbc. patients and 12 healthy persons. Using tubercle bacilli as the antigen, a positive response was obtained in 42 per cent. of the healthy; in 80 per cent. of his patients in the first stage of Tb.; in 57 per cent. of those in the second stage, and in 46 per cent. of those in the third stage. The dialysis test made with tubercle bacilli or tbc. gland tissue seems to be a specific reaction for Tb. But it affords no information whether the Tb. is active or inactive, and is no aid in the prognosis of the concrete case.—*Aberdalen's Dialysereaktion hos Ftsikere, V. Petersen, Ugeskrift for Laeger, June 8, 1916.*

**Tbc. Meningitis.**—In a girl of 7, tbc. meningitis was accompanied by hyperesthesia of the skin so intense she could not bear the slightest touch. The child died the twenty-fifth day, the hyperesthesia persisting to the end. The second patient was a young woman who died the ninth day after the onset of severe headache, with slight fever, and extreme prostration passing into complete and persisting coma the third day. In the third of this trio of atypical cases the patient was a woman of 24 who had been presenting symptoms of acute pulmonary Tb. during a pregnancy. The seventh day after delivery at term of a nonviable child, the woman developed maniacal excitement with the senses abnormally acute. It was impossible to make a physical examination at first, but the patient's strength rapidly declined and the signs and symptoms of involvement of the meninges in the tbc. process were soon apparent, with a fatal termination three weeks after the childbirth.—*Atypical forms of tuberculous meningitis, Gil y Ortega, Siglo Medico, June, 1916.*

**Rest and Exercise in Tb.**—A thorough knowledge of the principles of rest and of exercise must underlie the treatment of tbc. Neither exercise nor rest is to be prescribed offhand, but so long as there are symptoms pointing to an overworked body, rest is indicated, the character and amount to be carefully prescribed; with improvement, exercise slowly increased provides the safest means of regaining health and strength. Exercise must be increased gradually, as a single act of over-exertion may delay recovery months or years, or even preclude it. The transitional period should be under careful medical supervision until the patient is able to withstand without harm more than he will be called upon to endure when he takes up active work.—*Rest and exercise in Tuberculosis, Th. Frazer (Asheville) South. Med. Jour., July, 1916.*

**Hemoptysis as Symptom.**—In the attempt to reach a more definite conclusion as to the meaning of this symptom, Lord (Bos-

ton) reviewed 549 clinical cases of hemoptysis and 307 instances of hemoptysis with necropsy. Excluding from consideration all cases in which the diagnosis has not been established, there were 30 instances in which hemoptysis was an initial event, unprecedented or followed by pulmonary or other symptoms or accompanied only by cough with or without scanty expectoration. In this number are included 20 clinical cases with sputum positive for tubercle bacilli at the time of the bleeding or later in their course. The ten remaining were necropsy cases and nine showed obsolete, inactive, or active pulmonary Tb. The single exception to the tbc. origin of hemoptysis in this group illustrates an uncommon cause. This was the case of a man of 37, who entered the hospital in 1904 with a history of winter cough without expectoration for three years. He had an abundant hemoptysis three days before entrance, and death occurred two days after admission from a recurrence of the hemorrhage. At necropsy syphilitic ulceration of the trachea and bronchi, with rupture of a large branch of the pulmonary artery into the right primary bronchus, was found. Of the various causes of hemoptysis in the probable order of frequency, pulmonary Tb. doubtless occupies first place in consideration of the high incidence of this disease and the occurrence of hemoptysis in about 60 per cent. of all cases at some time in their life.

It is represented, among the 307 necropsy cases at the Massachusetts General Hospital, by only 27 cases, owing to the usual exclusion of patients in the active stage of the disease from the wards of the hospital. Chronic passive congestion occupies second place, but heads the list of the necropsy series with 105 cases. Then follow lobar (not broncho) pneumonia with 100 cases, pulmonary infarction with 48 cases, non-tbc. pulmonary suppurative with 14 cases, aortic aneurysm with 7 cases, new growths of the lung with 5 cases, and ulceration of the trachea and bronchi due to syphilis in 1 case. Copious bleeding is seldom seen apart from pulmonary Tb., occasional instances of abscess and gangrene, ruptured aneurysm, and ulceration of the trachea and bronchi. Other causes than those enumerated are rare and were not found among the necropsied series. The records are of interest in a negative sense in their failure to confirm the still too prevalent belief that vicarious menstruation is an adequate cause of hemoptysis, no example of which was found in the necropsy series. This and other evidence indicate that it cannot properly be regarded as a cause apart from some pulmonary lesion which is tbc. in the great majority of the cases.—*Hemoptysis as a symptom, F. J. Lord, Boston Med. & Surg. Jour., July 27, 1916.*

**Pneumothorax Treatment.**—Riviere states that pneumothorax treatment should be borne in mind as soon as ulcerative processes appear in the lungs and where life is threatened, but it must not be

postponed until life is in danger, for it is mostly then too late. The high function of pneumothorax therapy is to restore the lost cases to health; but the bad outlook must be recognized in good time if pneumothorax treatment is to succeed. A phthisis case may be to the initiated "lost" so far as ordinary methods of treatment are of avail, long before the end is in sight. It is at this stage, and even before, that the suitability of pneumothorax must be decided upon if a clear other lung, absence of widespread adhesions, and a re-expandable lung are to be with any likelihood attained. On the other hand, it must be admitted that the advanced, apparently unilateral, hilus Tb. cases are seldom met too late for this treatment, and it is remarkable how often the pleura remains sufficiently unadherent to allow the production of an efficient pneumothorax over disease extending even from apex to base. The writer mentions the following contra-indications: bilateral involvement, advanced emphysema, asthma, disability of the circulatory organs and kidneys, intestinal Tb. and diabetes. Dyspnea in itself he does not consider a contra-indication; neither laryngeal Tb. unless very advanced. Pneumothorax may be an emergency operation for bleeding, otherwise uncontrollable and likely to prove fatal, or it may be undertaken for some cases of recurrent hemoptysis.—*Indications and contra-indications in the pneumothorax treatment of pulmonary tubercle, Clive Riviere, The Lancet, July 15, 1916.*

**Tb. of the Middle Ear.**—H. B. Graham during the past four years studied exhaustively nine cases of Tb. of the middle ear, and believed that a trained aurist should be as capable of venturing a diagnosis of that condition nearly as readily as an internist that of Tb. of the lungs without a microscopic examination of the sputum. The diagnoses are based upon:

1. Clinical histories and examinations.
2. Pathological sections, which Breges states are the most reliable and accessible.
3. Presence of tubercle bacilli in the secretion from the ear—a rare occurrence.
4. Animal inoculations (difficult on account of mixed infection.) The anatomical picture of Tb. of the middle ear varies widely and is dependent upon the resistance of the patient, the length of exposure to the bacilli, and the anatomical part involved. In general, however, for classifying purposes, he believes that the picture varies according to the anatomical part involved, that is, the mucous membrane, drum, or bone, there being three or more distinct lesions. However, the process may be more or less general throughout the middle ear and may logically be classified into the following varieties: (a) lupoid, (b) infiltrating, (c) fungoid, (d) necrotic, (e) fibrinoid, and (f) myringitis diffusa of Möller. (a) The lupoid form occurs in adults, extends over a long period of time, and is marked by repeated exacerbations. In older cases the discharge, if present, is scanty and the amount of



destruction visible through the external canal quite deceptive. In the early cases the discharge may be pronounced during the attacks, hearing being quite markedly involved, but returning upon the subsidence of the discharge. The ultimate labyrinthine destruction in these cases is frequent. (b) Those cases confined to the mucous membrane are, as a rule, infiltrating, and show pathologically a marked infiltration of the mucous membrane of the middle ear. Clinically these cases are at times sub-acute, leading to an early perforation of the drum, but as a rule showing deafness of long duration without secretion or perforation, the membrana tympani exhibiting a marked thickening which varies from week to week. The profound deafness which is often present is not alone due to thickening of the mucous membrane, but also to labyrinthine degeneration, demonstrable by functional tests and the presence of deafness after the mucous membrane has returned to normal or has changed into a chronic suppurative type due to mixed infection. (c) The fungoid type is marked by rapidly forming granulation tissue which appears in the middle ear and mastoid without producing much bony change and attended with only a small amount of discharge. The drum shows but little change, the ossicles when removed being covered with granulations. Not infrequently the middle ear is free, the process having for its seat the mastoid spaces alone. (d) The necrotic form most often attacks adults and is free from fungoid masses. In this type the pus formation is often profuse and the antrum and mastoid filled with caseous material and sequestra floating in pus. As a rule the middle ear is lined with small, flat granulations in the form of polypi, although they may appear singly. (e) The most rare form is the fibrinoid variety, of which but few studies have been made. It is characterized by a thick, dry, whitish-yellow deposit on the promontory wall, under which usually lies a granulating bony surface. (f) The author does not describe the myringitis diffusa tuberculosa of Möller, merely stating that he believes it a type of the infiltrating variety. Cases of fungoid or infiltrating type may readily pass into the necrotic form, but not vice versa. The necrotic case remains a distinct entity, and is less likely to be checked by operation than the fungoid form. The infiltrated form, also, lends itself poorly to operative interference. Functional tests, when applied to cases of Tb. of the middle ear show generally a disproportion between the pronounced deafness, the duration of the condition, and the severity of the attack. The reduced perception of voice sounds and low tones, and the quantitative decrease of tone perception for all tuning-forks is a marked feature of the disease. A complete deafness with labyrinthine destruction may in the later stages develop without symptoms of internal ear derangement. X-ray findings and tuberculin are not without value in arriving at a diagnosis, but are of minor importance as compared to the clinical history and physical findings. Labyrinthitis and meningitis are fairly common complications of Tb. of the middle ear; the more rare complications are hemorrhage of the carotid, cavernous, or sigmoid sinuses; sinus thrombosis and brain tubercle. The prognosis in the most hopeless cases is fair, for the local process

is generally arrested. An early surgical intervention in the lupoid form should be as successful as in the ordinary suppurations of the middle ear. The necrotic type gives a dark outlook in the adult, for it generally occurs in advanced general tuberculosis. —*Tuberculosis of the middle ear, H. B. Graham, Ann. of Otol. Rhin. and Laryng., Vol. xiv, No. 1. (Taken from St. Paul Med. Jour., Aug., 1916.)*

**The Home Treatment of Tb.**—One of the best results to be achieved by the campaign for the prevention of Tb. is the improvement in the sanitary conditions, especially in such homes as are the most likely to have Tb. developed in them. With this in view there has, in fact, been everywhere created a demand for better, more cleanly, better ventilated, and better lighted homes. This demand has been making steady progress and the reduction of the new case incidence can well be attributed in large measure to this improvement of the home. But not so much in the prevention of the spread of one case to another has the improvement shown its strongest point, as in the creation of an atmosphere which reduces to a minimum the likelihood of the incipient cases rapidly passing on and through the other and final stages. It has the effect in curing a great many of the incipient, unrecognized cases. Since Virchow enunciated his dictum of the universality of Tb. the fact has been brought home that many of the transient cases of influenza, common colds, attacks of bronchitis, and even "run-down" conditions are merely the evidences of the presence of mild transitory infections with the tubercle bacillus; and that the little extra care enforced during this period in the shape of rest, freedom from all forms of dissipation, good food, and the like, soon overcomes these cases of mild, though masked, Tb.

Because of the home conditions the treatment of the poor for Tb. has heretofore been an especially difficult problem. To treat them in uncleanly, congested, unventilated, and unlighted homes was out of the question; the private sanatorium was out of the question because of the very enormous conditions which brought on the Tb.; and to wait for the public sanatoria to make room meant for most of them the arrival of their turn some time after death. In Tb., even if nowhere else, does money mean life; for even if a sanatorium is attained, the worry regarding the means to pay for this form of extravagance quite overbalances any good that might have been obtained through this form of treatment. The exiling of tbc. patients to distant wilds and distant climes, away from every encouraging influence, and to be a burden upon strange communities, is a crime no longer countenanced by the profession or by the public at large. The superstition that a mad scramble to the farthest point away from home gave the surest and most speedy hope of cure has no foundation in fact. On the contrary, it can be the greatest factor for harm. The overcrowding of certain communities having reputations as health resorts has a depressing influence on every one. Healthy influences and the presence of healthy people seem to be among the best stimulants to the recovery from illness.

Whether from necessity or from other causes, medical men are fast seeing the

possibilities of treatment with better results in near-by sanatoria, in domestic camps, or in the homes of the patients. The conversion of a previously insaniatory home into a suitable one for treatment is not always an easy task, but with persistence and co-operation it can be done. The possibilities of the home treatment have been well illustrated by the results obtained by the Home Hospital, established by the New York Association for Improving the Condition of the Poor. Their figures for cures are better than those of the best sanatoria. For the poor, the home hospital idea has decidedly the advantage over other methods because it adds to the well-being of the patients by permitting them to be near their dear ones, and often by giving them an opportunity to take advantage of any light occupation, when not contra-indicated by their condition. Besides, one successful case of home treatment carrying out all the required hygienic demands of the disease is a factor of no mean proportion in furthering this campaign for the prevention of Tb.

The addition of the day camp to the home treatment of Tb. has been a great improvement in such instances, especially where home conditions could not be made acceptable. And when the night-camp idea for patients in the incipient stage, who must do some form of work for their support, is added to the home idea in the treatment of Tb., the results will nearly approach the ideal. When cases are diagnosed early the physician is now in position to advise against exile or expensive sanatorium treatment, and to assure a cure by home treatment of greater speed, more substantiality, and longer duration than he could hope for in any other way. There is no doubt that with proper home surroundings modelled especially for this purpose, with care exercised against infecting others, with the influence of home and friends, with proper food at the lowest cost, and with the addition of the day and night camps, cure and rehabilitation of the tbc. by the home method may be obtained. And, particularly, the method encourages the maintenance of the highest sanitary ideals in the home after cure; where each case by the example set is rather a help to the community than a menace.—*Editorial, Med. Rev., Aug. 5, 1916.*

**Tb. of the Cervical Lymphatics.**—A study of 687 cases of Tb. of the cervical glands is offered by C. M. Dowd (New York) who thinks that, as tbc. infection usually occurs in childhood, this line of study is appropriate. The paper is based on the cases operated on by himself or under his observation during the last twenty-two years. These cases have been followed up with great care and the mass observations have been large, though there were difficulties in tracing some of them. They are divided into three groups, according to the period of development reached by the Tb. Four hundred and fifty-two were observed in the first stage, in which the infection was passing from the faucal tonsils. Many of them had, however, more extensive inflammations. The average age of this group was 8.03 years; sixty-seven of the patients were followed from six to twenty years; twenty-three were followed into the sixth year; thirty-six into the fifth year; fifty-three into the



fourth year; sixty-one into the third year; sixty-five into the second year, and forty-nine into the first year. Ninety-eight were not observed after leaving the hospital; 91 per cent. of the patients traced were apparently cured when last seen; 8.75 per cent. showed slight evidence of recurrence; 0.25 per cent., that is, one patient, had died of intercurrent typhoid fever, and 8 per cent. had secondary operations during the period of observation. In this class of patients the results are very satisfactory in spite of general bad hygienic conditions, and it is hard to think of another surgical operation with better results. It was suggested that many of these cases had bovine Tb. Drs. Park and Krumwiede examined many of these patients to determine this point. Their findings in patients from 5 to 16 years showed the bovine type in only 16½ per cent. Group 2 consisted of patients suffering from abscesses and enlargement of the nodes along the entire jugular chain and those along the trapezius border. One hundred and eighty-five patients were in this group, and their average age was 15.9 years; twenty-nine of them were followed from six to twenty years; eleven into the sixth year; eighteen into the fifth year; fourteen into the fourth year; twenty-four into the third year; nineteen into the second year, and ten into the first year. Sixty were not observed after leaving the hospital; 68.2 per cent. were apparently cured when last seen; 23.8 per cent. showed recurrences when last seen; 55 per cent. had died of intercurrent disease, partly Tb. Three patients died in the hospital, two from hemorrhages and one from thrombosis; 28.5 per cent. had two or more operations. These results were much inferior to those in Group 1, through which nearly all of them had passed. Group 3, the diffuse tbc., show very little power of resisting Tb., in which there are usually evidences elsewhere than in the neck. The treatment was far from satisfactory; but if, as appears, one-third of them were apparently cured after long periods of operation, there is some encouragement. Some confusion exists about the term "operation" in these cases. If opening of an abscess or removing a single node is called an operation, it will have very poor results; but if it means the removal of all the lymph nodes, the operative results will be very good. The most common error is when the patients have cold abscesses, and one may easily believe that this comprises the entire swelling; but in fact they regularly have groups of nodes which also ought to be removed. All operations should be done with regard to the anatomy of the neck and precautions against nerve injuries. Many cases are treated as the which D. would not have included in this study. Many nodes are simply hyperplastic and not truly Tb. The article is illustrated.—*Tuberculosis of the cervical lymphatics; a study of 687 cases. Ch. M. Dowd, Jour. A. M. A., Aug. 12, 1916.*

**Bacillæmia in Tb. Shown by Post-mortem Clots from Heart.**—Wilson examined blood clots from the heart in a case of generalized military Tb. in which the dissemination was extreme and the tubercles relatively young. The patient, a woman of 52 years of age, became ill about Oct. 21, 1914, with a feeling of unusual fatigue, fever and slight chilly sensations, increasing toxæmia, rapidly progressing anemia,

weakness and dyspnea, without any signs of localized disease. Death took place on November 29. (Many the lesions were found at the necropsy.) The white clots and blood found in the right side of the heart were fixed in mercuric chloride, carefully washed, and embedded in paraffin. The sections were floated on warm carbol-fuchsin without removal of the paraffin, decolorized, and counterstained with methylene blue, washed, dried on the slide, the paraffin removed by warming and the use of xylene, and the sections mounted in balsam. These stained sections were then carefully searched for tubercle bacilli. Only four typical slender and beaded acid-fast bacilli were found in the blood-clot sections. Sections of the tbc. lesions in the organs stained in the same manner showed the presence of similar acid-fast bacilli in enormous numbers in the focal necroses. If the other nine-tenths of the heart blood and clot not examined contained tubercle bacilli in the same proportion as the one-tenth examined, then the entire number contained in the heart blood at time of death would be forty or less. In this case, as the disease was in a most acute and severe form and the organisms were being generalized throughout the body in large numbers, the number of bacilli found in the blood at any given moment would have to be relatively small, and the chances for demonstrating their presence by stained smears, cultures, or animal inoculation could not be very favorable. In milder cases, and in cases of chronic pulmonary Tb. the chances for such a diagnostic demonstration of the bacilli in the circulating blood would seem to be very small indeed.—*Bacillæmia in Tuberculosis as shown by examination of post-mortem clots from heart, U. F. Wilson, Jour. of Infect. Dis., Aug., xix, No. 2, 1916.*

**Tubercle Bacilli in Heart Clots in Military Lymph nodes and a widely disseminated military Tb. (skin, endocardium) developed in the course of chronic lymphatic myelogenous leukemia.** Four tubercle bacilli to sixty slides, or 1 to 15, were found in the venous blood of the right heart.—*Tubercle bacilli in heart-clots in acute military tuberculosis complicating chronic lymphatic myelogenous leukemia, R. R. Dieterle, Jour. of Infect. Dis., Aug., xix, No. 2, 1916.*

**Diet in the Treatment of Pulmonary Tb.**—It is obvious that diet is one of the most important factors in the successful treatment of pulmonary Tb., and it seems that so much has been written concerning this phase of the subject that there is little or nothing to add. While on the main principles of the dietetic treatment of Tb. however, there appears to be unanimity of opinion among authorities, there are certain points which require to be continually emphasized, and other points are now and then brought forward which possess a pleasing air of freshness. A paper by Dr. David C. Murthu (*Practitioner*, June, 1916) provides an excellent example of the emphasis of salient features in the diet of consumptives and also supplies some useful hints with respect to particular kinds of food and modes of feeding. The writer is in complete accord with the great majority of English-speaking physicians who have made a study, practical and theoretical, of the most scientific ways in which the tbc. may be fed, that overfeeding is a

mistake and in most instances is likely to do more harm than good. Forced feeding is not necessary in the early stages of the disease, and is not of much use in the late stages, when the stomach is too enfeebled to digest any food. As Murthu observes, the public are apt to forget that not the quantity of food, but the efficiency of the gastric organs to digest and assimilate, is the real criterion. Judgment as to the condition of a consumptive patient must not be based solely on weight, for the obese, flabby, the individual may and often is, so far as the progress of his malady is concerned, in a worse condition by far than the emaciated one. Rational feeding should be the motto in the treatment of the tbc., and not stuffing, and this is particularly true in the case of weak digestion, a very common failing, by the way, in persons afflicted with this disease. As a matter of fact, the secret of a successful diet depends more upon attention to economy in feeding than by giving way to extravagance. Nevertheless, while forced feeding should be tabooed, as a rule, there is a class of patients who must be induced to eat much more heartily than is their custom. Such persons, usually women, although possessed of normal powers of digestion and fairly good assimilative powers, have persuaded themselves that they cannot eat solid food. They are of a neurotic type and, by habitually denying themselves sufficient sustenance, have sunk into an aggravated neurotic state. It is incumbent in the treatment of such patients to use a certain amount of compulsion. A great lesson has been learned from experiments on foodstuffs, that their physical properties play a more important part in the process of metabolism than their actual chemical properties; the fresher the food, the more easy and rapid the digestion, and the more nutritive its value. Murthu believes that milk to be nourishing and digestible should not be boiled, but given in its raw, fresh state. This is obviously a matter of opinion regarding which it is impossible to say anything really definite.

Finally, it may be pointed out that worry, mental strain, and stress interfere with the physiological functions of the stomach and healthy metabolism. The consumptive, speaking generally, has a weak digestion, and therefore it is more essential to his well-being than to that of the normal subject that he be free from anxiety and possess that contentment of mind which is said to be a continual feast. In arranging the diet of his patients, the physician should take into consideration their mental condition and temperament, their habits of life and idiosyncrasies.—*Editorial, N. Y. Med. Jour., July 8, 1916.*

**Tb. of Superior Maxilla.**—Report of two cases. Primary Tb. of the mouth is unusual, that of the superior maxilla being especially infrequent. Carious teeth and the trauma incidental to their extraction furnish the avenue of entrance for the infection. In individuals predisposed to Tb. the resistance of the tissues is lowered by tooth decay and a favorable site for the infection is established.—*Tuberculosis of the Superior Maxilla, R. D'Alise, Annale di Odontologia, Feb., 1916.*

**Prevalence of Tb.**—The prevalence of Tb. is, to a great extent, indicative of the general standard of life. Some of the im-



portant factors exerting their influence upon the mortality rate from Tb. are: Educational standards, average economic status, standard of personal and public hygiene, standard of health administration, purity of food supply, predominant occupations, racial composition, degree of industrialism, density of population, housing conditions, etc. The total number of deaths from Tb. in the registration area in 1914 was 96,903, 87 per cent. being from pulmonary Tb. Of the total mortality from all causes, 10.79 per cent. was due to Tb. The chief causes of death during this year were: Heart disease, tuberculosis and pneumonia, in order given. From 1904 to 1914 the death rate from Tb. decreased 25 per cent. Including the non-registration area, the total mortality from Tb. in the United States is estimated at between 150,000 and 200,000. Average age at death from pulmonary Tb. during 1909 was given as 36.1 years. While the mortality rate in the registration area of the United States for the years 1906-10 was 168.7 per 100,000 living population, in England and Wales for the same period it was 156.7. On the other hand the death rate from non-tbc. diseases was greater in England than in this country. Of the different states, the highest death rate exists in those states which attract a large number of tbc. invalids or in those with large negro population. With these exceptions, the lowest death rate from Tb. is found in the Western and Mississippi Valley states, Utah having the lowest rate (44 per 100,000), next being Montana (90), and Michigan (98). With regard to cities, density of population, racial composition and the degree of industrialism are the main factors influencing the death rate. Of foreign cities, in 1912 Paris had the highest death rate from Tb., 332 per 100,000; next came Petrograd, Dublin, Moscow, Vienna, Venice, and Belfast. The Australian cities had the lowest rate; Melbourne, 104. Other cities with low rate were: Edinburgh, Amsterdam and Glasgow. It is easy to reduce an excessive death rate to one of moderate proportions, but very difficult to reduce considerably a low death rate still further. Rural communities have a much lower death rate than urban communities, generally about one-third. In 1910 the Tb. death rate among the colored was three times as large as among the whites; the colored including not only negroes, but a small number of Chinese, Japanese, Indians, Hindus, and Malay. Among various races and nationalities in New York in 1910, the largest rate was found among the colored and Irish, the lowest among the Russian. Between 20 and 29 years of age, 38.8 per cent. of all deaths are from Tb. Under 15 years the prevalence of Tb. is greater among females, while above this age the disease is more prevalent among males. The highest Tb. death rate among males is between the ages of 35 and 44; among females, 25 and 34 years. The highest mortality is found among those engaged in dusty trades, like marble and stone cutters, tobacco-workers, plasterers, printers, and domestic servants. Housing is one of the most important factors. About 80 per cent. of cases of pulmonary Tb. is said to occur in houses of less than three rooms.—*Prevalence and Distribution of Tuberculosis*, Theo. B. Sachs (Chicago) Bull. Chicago Tb. Institute, June 1, 1910.

**Personal and Public Hygiene in Tb.**—The conditions which render the soil favorable for the development of Tb. may be collected in two groups: The direct contributory causes, including heredity, disposition, and predisposition, diathesis, etc., and the indirect contributory causes which include housing, food, clothing, insanitary surroundings, alcoholic and other excesses. A hereditary or acquired fertile soil is necessary before the invasion by the bacillus can produce tbc. disease. By properly instituted hygienic laws and surroundings it is within the possibility of every primarily infected individual to keep his infection quiescent and to enjoy at all times the privileges of perfect health. It is remarkable that in a household where either the husband or wife has Tb. it is very infrequent that both have active disease, and if the active tbc. partner is removed to a sanitarium or dies, the remaining member will heal out spontaneously. Frequent pregnancies and lactation are predisposing factors. As regards infection by contact, it is estimated that about one-fourth of all tbc. infections become active by prolonged association with a phthisical individual. Contact Tb., however, plays a minor rôle; the infection has often existed before.—*Contributory factors in the development of tuberculosis; personal and public hygiene*, John Ritter (Chicago) Bull. Chicago Tb. Institute, June 1, 1910.

**The Bone Graft in Pott's Disease.**—A compilation of results following bone-grafting operations performed by various surgeons in this country and abroad gave the following data: Thirty-three surgeons reported 300 cases with the following results: In 229 the disease was arrested, 59 improved, and 12 died. Four of the deaths were due to shock, while the remaining 8 died longer than four months after the operation, of intercurrent disease. Sixteen surgeons reported disease arrested in 100 per cent. of cases. The author had 198 cases which had been operated longer than one year. In 184 the disease was arrested, 2 were improved, and 12 died. Six deaths were due to intercurrent disease, the remaining to amyloid degeneration, pulmonary Tb. and an acute abdominal condition. Of the total 539 cases, 3 died of tbc. meningitis. The ages varied from 20 months to 65 years. The percentage of disease arrested was 85.4. Early operation and improved technic should yield better results. The diagnosis should always be confirmed by the X-ray, which must include an antero-posterior view. This is imperative not only to confirm the diagnosis, but to insure the proper placing of the graft.—*A statistical study of 539 cases of Pott's disease treated by the bone graft*, F. H. Albee, Amer. Jour. Orthop. Surg., March, 1910.

**Percussion in Early Tb.**—In the detection of early tbc. disease of the lungs gentle percussion is of the greatest value. Gentle percussion discovers disease in 25 per cent. more cases than auscultation. Percussion should be practiced from the wrist and with the tip of the middle finger bent at right angle and descending vertically, only the distal phalanx of the other hand pressed tightly against the chest serves as pleximeter. The taps should be

very gentle at first and very gradually increased in order to ascertain at what point the impairment of sound disappears. The most delicate changes of note occur only at the point where the percussion sound is only just audible. The patient stands and breathes freely. The points of election for early Tb. are behind the inner half of the clavicle in front and the apices of the upper and lower lobes behind. The smallest lesion may produce a relatively extensive change in percussion, due to collapse of lung tissue, pleurisy or muscle rigidity. With ordinary percussion the note obtained during expiration is more resonant than during inspiration. In disease this resonance is greatly diminished. Expiratory percussion, after the patient has let the air out of the lungs and holds his breath, is therefore of much value in comparing the two sides. Kroenig's method is of considerable utility in the diagnosis of early tbc. and other apical lesions. The "isthmus" of Kroenig's area is normally about five cm. It can also be outlined by auscultatory percussion. The stethoscope is placed below the clavicle in front or between the upper angle of the scapula and the vertebral column behind. A light tap or stroke is given over the middle of the shoulder. A loud and clear note indicates healthy lung tissue. Stroking or tapping is continued, moving the finger away from the middle of the shoulder, until the loud note is no longer audible, but instead a distant, dull note. This method is especially valuable when we examine a patient in a noisy room or wish to verify the results of ordinary percussion. Tidal percussion, e. g., percussing during quiet breathing and again during deep inspiration and comparing the expansion of the two sides—allows the determination of the extent of pleurisy in phthisis and thus can guide the establishment of artificial pneumothorax.—*Percussion in Early Tuberculosis*, J. Schneyer, N. Y. Med. Jour., July 22, 1910.

**Diagnosis of Tb. in Children.**—We can compare the progress of Tb. to the progress of syphilis. We have the primary focus of Gohn, which is a small lesion of bean or pea size, seen as a dark spot moving with respiration when examined with the fluoroscope. Then we have as the secondary stage type the involvement of the bronchial glands, or the pneumonias. These glands may give pressure symptoms, such as a cough resembling whooping-cough, except that the whoop is expiratory instead of inspiratory. The tbc. glands may be seen behind the heart when the patient is examined laterally with the fluoroscope. Then we have the caseous pneumonias and milary Tb. The latter is of two types. The cachectic type with fever, loss of weight and atrophy resembling marasmus; another with fever, altered breathing and no focal signs. The X-ray plate is pathognomic. It may show a triangular shadow passing from the heart, with the base inward, which Sluka maintains is one of the early signs of bronchial gland Tb. Apical Tb. is rare in children. The sun or Rollier treatment has given beautiful results.—*The diagnosis of early tuberculosis in children*, J. P. Sedgwick, St. Paul Med. Journal, July, 1910.





